



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,579	12/12/2003	Bo Li	H0003137 DIV -4780	2550
7590	07/21/2005			EXAMINER
Sandra Poteat TThompson Bingham McCutchen LLP Three EmbracaderoCenter San Francisco, CA 94111				ZEMEL, IRINA SOPJIA
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/735,579	LI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Irina S. Zemel	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 February 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 55-89 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 55-89 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 58 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 6,740,685. This is a double patenting rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Applicants should note that even though the instant application is filed as a divisional application, no restriction requirement have been issued in the parent application and the claims of both applications are either identical or obvious over each other, thus the double patenting rejection is proper.

Art Unit: 1711

Claims 55-57 and 59-89 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,740,685. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application and the claims of the referenced patent are of overlapping scope with the claims of the instant application being broader than the claims of the referenced patent, thus making claims of the instant patent obvious over the species claimed in the referenced patent.

Claims 55-89 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-55 of copending Application No. 10/158,513 and claims 29-61 of the copending application No. 10/404,047. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims of each application define compositions comprising a thermosetting component and a porogen with the scope of both components claimed in each the referenced applications and the instant application overlapping with each other, thus making the claims of the instant application obvious over the claims of the referenced applications..

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Specification***

The disclosure is objected to because of the following informalities:

Art Unit: 1711

The specification contains references to unidentified co-pending applications.

See, for example, page 7, 13, 14., etc. While it is understood that the applicants may not have known the required information at the time the original specification was filed, the information be available to the applicants at this time

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 55, 59, 61-72, 79-89 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specifically defined cage compounds, does not reasonably provide enablement for any compound that can be considered to be a "cage" compound. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The term "cage" compound does not appear to be a defined term of art, and in view of the definition given by the applicants on page 13 of the specification, various compounds, such as those based in indene structure falls within the definition of the cage compounds. However, no enablement is given to any of the cage compounds outside of the exemplified adamantane or diamantane compounds and undue experimentation is required to practice the claimed invention for any other compounds.

Art Unit: 1711

Applicants are urged to more clearly define the cage compounds that are within the scope of enablement disclosure in the claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 55-89 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 55 defined an optional compound of formula (I), but fails to define the meaning and scope of Q's and E elements of the formula (I). It is further not clear whether the Q's and E defined for compound of formula (II) in claim 58 are the same as Q's and E of formula (I).

Claims 73-78 depend directly or indirectly on the base claim 55 which does not provide definitions of any of the substituents in the claimed formulas.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Art Unit: 1711

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 55 and 61 are rejected under 35 U.S.C. 102(a or e) as being anticipated by US Patent 6,323,249 to Dale et al., (hereinafter ("Dale").

Dale discloses thermosetting composition based on styrene and other aromatic co-monomers (see column 3, line 44 to column 4, line 8), and poly alkylene oxide porogens (column 3, lines 37-43).

Applicants should note that while the claims are read in light of the supporting specification, the claim limitations can not be read into a claim from the specification. Thus, in its broadest reasonable interpretation, the claimed oligomer or polymer reads on copolymers of aryl compounds with any other polymerizable compounds in the absence of precise definition of the claimed "cage compound" in the base claim 55.

Thus, the invention as claimed is anticipated by Dale.

Applicants once again are urged to amend the claims so that the definition of the cage compounds precisely limits the scope of the claims to the intended compounds only, so to clearly distinguish the claimed invention from the thermosetting aryl-based polymeric porous materials of the prior art.

***Allowable Subject Matter***

Art Unit: 1711

The invention claimed in claims limited to specifically structurally defined cage compounds are allowable over the prior art of record since no references of record that constitute valid prior art disclose compositions containing those compounds in combination with binding porogens.

***Information Disclosure Statement***

While the IDS submitted in the parent application have been considered, the applicants are advised that no references cited in the IDS submitted in the parent application will be cited on the front page of the patents (should the instant application mature in one) unless the applicants submit an IDS listing all of the references in the instant application. (No copies of references are required for the references already submitted in the parent application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

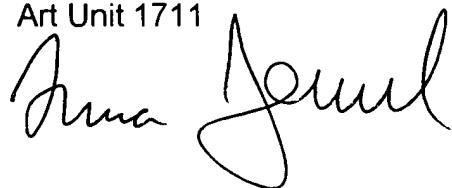
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel  
Examiner  
Art Unit 1711

ISZ

A handwritten signature in black ink, appearing to read "Irina S. Zemel".